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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,905	03/21/2001	Petter Ericson	3782-0118P	1164

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EXAMINER

MOUTTET, BLAISE L

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 05/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/812,905

Applicant(s)

ERICSON ET AL.

Examiner

Blaise L Mouttet

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Objections

1. The claims are objected to because of the large gaps present between consecutive claims, for example between claim 19 and claim 20 (see MPEP 608.01m). As a matter of clarity of form and to avoid possible printing errors even spacing should be provided between the claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear whether the processor of claim 4, line 2 is the same processor of claim 1, line 6 or a second different processor.

3. Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted step is how the graphical information is provided. The specification of providing graphic information is necessary for the comparison performed in the indicia printing step as claimed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

4. Claims 1-6, 8, 9, 14, 16-18, 22-24 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamada US 5,927,872.

Yamada discloses, regarding claim 1, a handheld printer/scanner for printing graphical information on a surface comprising:

a print head 28 for printing indicia on the surface (column 5, lines 10-20);

an image sensor 30 for recording an image of the surface, wherein the recorded image contains a position coding pattern 62 that identifies a position on the surface (column 3, lines 32-39, column 5, lines 61-67, figure 5); and

a processor 76 for converting the recorded image into a recorded position (column 7, lines 58-67),

wherein the print head 28 prints indicia on the surface based on a comparison of the recorded position with graphical information to be printed (column 7, lines 58-67, figure 5).

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Regarding claim 2, see column 4, lines 25-29.

Regarding claims 3 and 8, see column 7, lines 1-15 and 33-34 that describe the memory 78 for storing a plurality of graphic positions to be printed on the media.

Regarding claim 4, the computer system 12 receives the graphic information from the user and converts it to the plurality of graphic positions transferred to the processor 76 and memory 78 (column 7, lines 17-32).

Regarding claims 5 and 6, see column 3, lines 32-39 and column 7, lines 33-54.

Regarding claims 9, 23 and 24, see column 9, lines 45-63.

Regarding claims 14, 16 and 27, see figure 3.

Regarding claims 17 and 18, see column 5, lines 11-20.

Regarding the method of claim 22, see column 9, lines 39-63.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 7, 10, 12, 13, 20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada US 5,927,872 in view of Sekendur US 5,852,434.

Yamada fails to disclose that the recorded position is defined by two coordinate values to determine a speed and direction of the printhead in relation to the print surface.

Sekendur discloses utilizing a recorded position to define plural coordinates values to determine the speed and direction of a pen/scanner combination in relation to a print surface (column 3, lines 16-32).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the recorded position of Yamada to define plural coordinates to determine the speed and direction of the printing element as taught by Sekendur.

The motivation for doing so would have been to avoid tracking errors by accurately determining the position and movement of the printing element as taught by column 2, lines 59-63 of Sekendur.

6. Claims 11, 21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada US 5,927,872 in view of Sekendur US 5,852,434, as applied to claims 10, 20 and 25, and further in view of Sato et al. US 4,851,921.

Yamada in view of Sekendur fails to disclose determining whether the speed of the printhead in relation to the print surface is constant and terminating printing when the speed changes at a rate greater than a predetermined value.

Sato et al. determines in a handheld printer/scanner whether the speed of a printhead in relation to the print surface is constant and provides a warning alarm when the speed changes at a rate greater than a predetermined value (see abstract).

It would have been obvious for a person of ordinary skill in the art to perform the determination of Sato et al. in the apparatus of Yamada in view of Sekendur and halt printing when the speed changes at a rate greater than a predetermined value.

The motivation for doing so would have been to reduce errors occurring during printing and scanning due to an unstable moving speed of the printhead as taught by column 1, line 64 - column 2, line 5 of Sato et al.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada US 5,927,872 in view of Montgomery et al. US 4,797,544.

Yamada fails to disclose that the angle of the main viewing direction of the image sensor is determined with respect to the printing surface based on the recorded image.

Montgomery et al. teaches determining the angle of the main viewing direction of a handheld scanner by detecting indicia on a printed surface (column 1, lines 52-56).

It would have been obvious for a person of ordinary skill in the art to determine the angle of the main viewing direction of the image sensor of Yamada as taught by Montgomery et al.

The motivation for doing so would have been to accurately detect the image recorded by the image sensor so that the position of the scanner may be accurately tracked as taught by column 1, lines 52-56 of Montgomery et al.

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada US 5,927,872 in view of Poole US 5,816,718.

Yamada fails to disclose that the printhead of the handheld printer is a thermal marking printhead.

Poole discloses a hand-held printer and teaches the equivalence to one of ordinary skill in the art of inkjet and thermal printheads in hand-held printers (column 6, lines 46-50).

It would have been obvious to a person of ordinary skill in the art to utilize a thermal printhead instead of the inkjet printhead of Yamada given the equivalence taught by Poole and the lack of criticality of the printhead type to applicant's invention.

Additional Prior Art

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nihei US 4,611,246 discloses a handheld printer/scanner which scans image data from a recording media, records the image data in memory and prints the image data stored.

Winterburn US 4,835,544 disclose the application of a code to print media representing information indicative of the type and control of the media. The code may be arranged anywhere on the printed text including as part of the printed page (column 2, lines 24-28, figures 1-4).

Birk US 5,446,559 discloses a handheld printer/scanner for scanning a printing media to regulate drive control for the movement of the printer/scanner.

Wiklof et al. US 5,825,995 discloses a handheld printer that uses a roller encoder to detect the position and movement of the printer and to regulate the printer driver.

Kokubo et al. US 5,953,497 discloses a handheld printer/scanner which regulates the drive of the printing unit in accordance with the speed of the printer detected by a mechanical encoder.

Moghadam et al. US 6,325,480 discloses a printer with a printhead/scanner that prints and scans registration marks to enable proper registration of the images to be printed.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Blaise Mouttet whose telephone number is (703) 305-3007. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow, Jr. Art Unit 2853, can be reached on (703) 308-3126. The

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fax phone number for the organization where this application or proceeding is assigned is (703) 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Blaise Mouttet May 3, 2002

Bm 5/3/2002


John Barlow
Supervisory Patent Examiner
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